**REMARKS**

The Applicant has reviewed the Examiner's comments in the Office Action and appreciates the Examiner's care in examining the Application. The Applicant appreciates the Examiner's indication that claims 1-14 and 16-22 are allowable.

In the Office Action, the Examiner first objected to the Drawings under 37 CFR 1.83(a), particularly in view of pending claim 23. Additionally, the Examiner rejected claim 23 under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention, and additionally under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Further, the Examiner rejected claims 15 and 23 under 35 U.S.C. Section 103(a) as being unpatentable over Stacey (U.S. Patent No. 5,140,245) in view of Feingold (U.S. Patent No. 5,455,763).

In response to the Office Action, the Applicant has canceled claim 23. Thus, the Applicant respectfully submits that each of the grounds of objection and rejection pertaining to claim 23, including the objection to the drawings, is no longer applicable.

As for the rejection of claim 15 under 35 U.S.C. Section 103(a), the Applicant respectfully traverses that rejection for at least the following reasons:

**Feingold is Not Analogous Art**

First, the Applicant respectfully traverses the rejection of claim 15 under 35 U.S.C. Section 103(a) because Feingold does not constitute art that is analogous to the subject matter of pending claim 15. Specifically, the Applicant respectfully submits that Feingold is not "in the field of [A]pplicant's endeavor or . . . reasonably pertinent to the particular problem with which the inventor was concerned" (Section 2141.01(a) of MPEP, citing *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443,1445 (Fed. Cir. 1992)).

Feingold concerns implementing a feedback system to control a magnitude in an industrial process, and in particular relates to controlling a magnitude in a nuclear power station (see col. 1, lines 7-9 and col. 3, lines 3-5). In contrast to Feingold, the Applicant's invention as recited in claim 15 relates to the control of an alternator in a genset, and does not relate to the control of an industrial process such as a nuclear power station. For this reason, therefore, the Applicant respectfully submits that Feingold does not pertain to the same field of endeavor as the Applicant's invention.

Additionally, while Feingold does concern a feedback system, the feedback system in Feingold is for controlling a magnitude based upon the current value of the magnitude as compared with a set point signal, "in the presence of strong and/or rapid variations in an external magnitude also imposed on the process" (col. 1, lines 58-63). In contrast, both of the inner and outer loop means recited in pending claim 15 provide feedback based upon the voltage outputs of the alternator, with the inner loop means operating based upon at least one of those voltages and the outer loop means operating based upon at least two of those voltage outputs. That is, in contrast to the feedback system of Feingold, neither of the inner and outer loop means of claim 15 is intended to account for "variations in an external magnitude also imposed on the process" as meant by Feingold (as best as the Applicant can determine). For this reason, and also for the reason that the Applicant's invention concerns alternator control rather than control over an industrial system, the Applicant respectfully submits that Feingold does not pertain to solving the same problem as the Applicant's invention.

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**No Suggestion to Combine References to Arrive at Claim 15**

Second, the Applicant respectfully traverses the rejection of claim 15 under 35 U.S.C. Section 103(a) because the Applicant is unable to find, within either of Stacey or

Feingold, any suggestion to combine the two references to arrive at the Applicant's invention recited in claim 15. As discussed above, Feingold relates to a feedback system for controlling a magnitude in an industrial process, and in particular relates to controlling processes in a nuclear power station. The Applicant is unable to find any disclosure within Feingold suggesting that any of the teachings of Feingold would be applicable in regards to controlling the excitation of an alternator in a genset.

As for Stacey, that reference appears to be unrelated to a system for generating a control signal for the excitation level of an alternator of a genset. Rather, Stacey appears to concern a system for sensing the rotational position of a rotating shaft (see col. 1, lines 7-10), and using that information to accurately control the operation of a synchronous motor by controlling the generation of stator winding currents (see col. 2, lines 16-22).

Indeed, Stacey appears to have a totally different purpose than the Applicant's invention recited in claim 15. While Stacey concerns measurement and control of the position of a motor, the Applicant's invention concerns measuring the output voltage of an alternator and, based upon these measurements, controlling the excitation of the alternator. Also, while the control signals produced by Stacey are to control the stator winding currents of a motor, the control

signal produced by the Applicant's invention is to control the field winding currents of the alternator, which in turn influence the overall voltages output from the stator windings of the alternator (see the Specification at page 1, lines 14-18). Therefore, as with Feingold, the Applicant is unable to find any teaching within Stacey suggesting that any of the teachings of Stacey would be applicable in regard to controlling the excitation of an alternator in a genset.

Given the lack of relation between each of Stacey and Feingold with the Applicant's invention in pending claim 15, it is not surprising that the Applicant also is unable to find within either reference any suggestion to combine the references with one another and/or modify the references to arrive at the Applicant's invention. That is, the Applicant is unable to find within either Stacey or Feingold any discussion as to how the control system of Feingold for an industrial process would be applicable with respect to the control of a synchronous motor as in Stacey. Further, the Applicant is unable to find any suggestion, within either Stacey or Feingold, to modify any combination of those references to attain a control system for alternator excitation level as recited in pending claim 15.

**Cited References Do Not Show All Limitations of Claim 15**

Third, the Applicant respectfully traverses the rejection of claim 15 under 35 U.S.C. Section 103(a) because Stacey and Feingold, both alone and in combination, fail to show all of the limitations recited by claim 15. In paragraph 5 of the Office Action, the Examiner states that Stacey does not show inner and outer loops, but further states that Feingold does show such inner and outer loops. The Applicant recognizes that Fig. 2 of Feingold does show two loops. Nevertheless, the Applicant submits that Feingold and Stacey alone and in combination fail to show all of the limitations of claim 15.

Several limitations of claim 15 in particular appear to be missing from Stacey and Feingold. To begin, claim 15 includes inner and outer loop means that provide first and second control signal components, which are used to control an excitation level of an alternator. In contrast, the Applicant is unable to find within either Stacey or Feingold any discussion of generating two components of an alternator control signal by way of two separate loops. That is, even though Feingold discloses two loops, the Applicant is unable to find any indication within Feingold that those two loops provide respective alternator control signals. Further, the Applicant is unable to find within Stacey discussion concerning the generation of alternator control signals, or

any suggestion within either Stacey or Feingold to provide such control signals.

Additionally, claim 15 provides that the outer loop means provides the first control signal component based upon a plurality of alternator output voltages, while the inner loop means provides the second control component based upon at least one of the alternator output voltages. In contrast, the Applicant is unable to find within either Stacey or Feingold any discussion of generating two alternator control signal components based upon the alternator's output voltages. Nor is the Applicant able to find within either reference any discussion of generating two alternator control signal components, where one of the two alternator control signal components is generated based upon multiple output voltages while the other of the two alternator control signal components is generated based upon as few as one of those output voltages. See drawings

Further, the Applicant is unable to find any discussion within either Stacey or Feingold of updating one alternator control signal component at a more frequent rate than another alternator control signal component, as recited by claim 15. That both Stacey and Feingold apparently fail to disclose this limitation is significant not only on its face, but also insofar as it is the different updating rates of the different control signal components as recited in claim 15 that allows

the Applicant's invention to provide more accurate control for an alternator (see the Specification at page 4, lines 4-11).

The Applicant also respectfully submits that the Examiner has not indicated what portions of Stacey or Feingold disclose the structures corresponding to the inner loop means and outer loop means recited in claim 15. The Applicant respectfully requests that the Examiner provide such information. Although the Examiner in paragraph 5 of the Office Action states that Stacey discloses first and second calculation elements, an intermediate signal generator, and a control signal generator, these elements are not expressly recited by pending claim 15. Nevertheless, assuming that the Examiner by referring to these elements is attempting to show that the structures corresponding to the inner loop means and outer loop means are in fact shown by Stacey, the Applicant respectfully submits that this is not the case. In particular, the Applicant reiterates the arguments made in the Office Action response by the Applicant submitted on February 8, 2002 that Stacey fails to disclose a second calculation element, an intermediate signal generator, and a control signal generator.

For at least these reasons, therefore, the Applicant respectfully submits that numerous limitations of pending claim 15 are missing from Stacey and Feingold.

* * *

**Conclusion**

In view of the Applicant's amendments and Remarks being submitted herewith, the Applicant respectfully requests reconsideration and allowance of the present application.

The Applicant wishes to invite the Examiner to telephone the Applicant's attorney at the number listed below if discussion with the Applicant's attorney would be of assistance to the Examiner or further the prosecution of the present application.

Respectfully submitted,

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